

Cryptosporidiosis

Agent: *Cryptosporidium parvum* and *Cryptosporidium hominis* are the most common species that cause disease in humans (parasite)

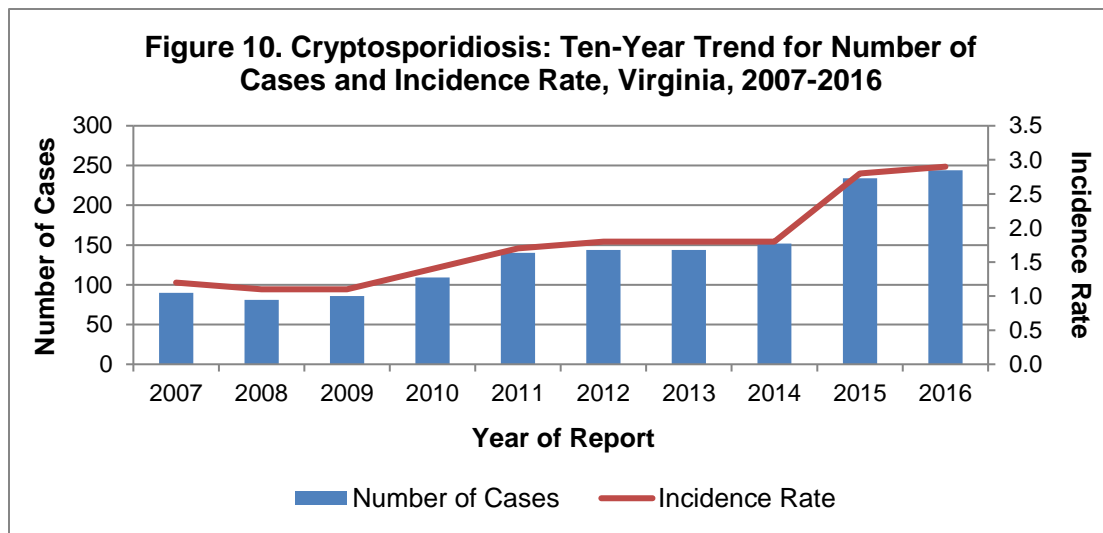
Mode of Transmission: Occurs via the fecal-oral route and can include person-to-person, animal-to-person, foodborne, and waterborne transmission. Animals such as cattle, sheep, and goats have tested positive for the parasite and are an important reservoir, contributing to both direct transmission and contamination of water supplies; however, many other animals, including cats and dogs, can be infected and transmit disease. *Cryptosporidium* oocysts may be excreted from infected individuals for up to several months after diarrhea has resolved. Oocysts can remain infectious for 2-6 months after being excreted. The oocysts are very resistant to chemicals used to purify drinking water and disinfect recreational water (e.g., chlorine in pools).

Signs/Symptoms: Profuse watery diarrhea with nausea, cramping, and abdominal pain. The diarrhea may be preceded by anorexia and vomiting in children. Illness is typically self-limiting, and will either resolve on its own or have no harmful long-term effects. However, immunocompromised persons have a higher risk of severe disease, which can lead to poor outcomes, including death. Asymptomatic infections are common.

Prevention: Preventive measures include careful hand hygiene after using the bathroom, after changing diapers or cleaning a child who has used the bathroom, after handling animals or their feces, and before preparing and eating food. People with diarrhea should not enter public recreational water. Water purification methods, including boiling water or filtration, should be considered when drinking water from natural streams, lakes, springs, or any unknown source.

Cryptosporidiosis: 2016 Data Summary	
Number of Cases:	244
5-Year Average Number of Cases:	162.8
% Change from 5-Year Average:	+50%
Incidence Rate per 100,000:	2.9

In 2016, 244 cases of cryptosporidiosis were reported in Virginia. This is slightly higher than the 234 cases reported in 2015, and a 50% increase from the five-year average of 162.8 cases per year (Figure 10). The statewide incidence rate of 2.9 cases per 100,000 population in 2016 represented a slight increase from the rate of 2.8 per 100,000 in 2015.



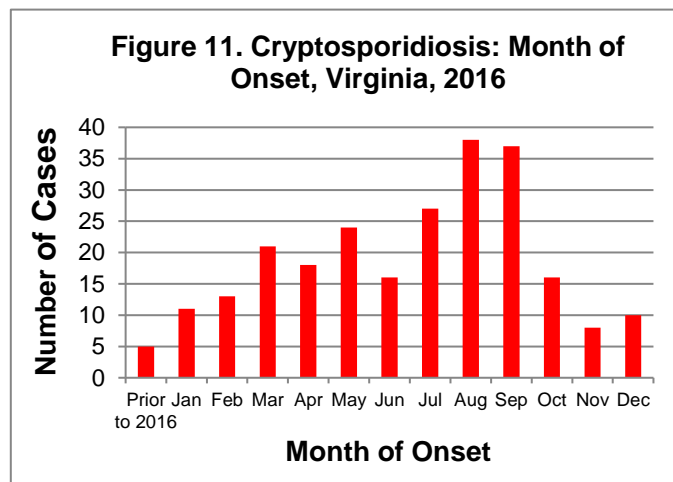
In 2016, the highest incidence rate in Virginia was observed in the 1-9 year age group (3.9 per 100,000), followed by the 30-39 (3.6 per 100,000), 60 year and older (3.2 per 100,000), and 20-29 (3.1 per 100,000) years age groups. Incidence among all other age groups fell below the statewide rate of 2.9 cases per 100,000, and ranged from 1.9 to 2.7 per 100,000.

Race information was not available for 25% of cases in 2016. Among cases with a known race, incidence was higher among the white population (2.3 per 100,000) than the black population (1.9 per 100,000) and the “other” race population (1.5 per 100,000). Incidence was higher among females (3.6 per 100,000) compared to males (2.2 per 100,000) during 2016.

Geographically, the highest incidence rate was observed in the eastern region (4.2 per 100,000). Rates ranged from 1.3 to 3.5 cases per 100,000 in other regions, with the lowest incidence occurring in the central region (see map below for incidence by locality).

Nationally, a higher number of illnesses are typically seen during the summer and early fall months, which is consistent with increased recreational water exposure, including public pools. This seasonal pattern was also observed in Virginia, with disease onset peaking during August and September (Figure 11).

Among patients that had risk factor information recorded, the most commonly reported risk factors in 2016 include travel (45/202 cases, 22%), recreational water exposure (46/188 cases, 24%), and contact with animals (69/178 cases, 39%). No cryptosporidiosis outbreaks were reported in Virginia in 2016.



Cryptosporidiosis Incidence Rate by Locality Virginia, 2016

